

AG-MDR15
Full HD portable
recorder



AG-MDC10
Compact camera head

Full HD Operating Room Recording System

Full High Definition, 3chip compact camera & recorder system with exceptional color accuracy

Full HD image capture (1920 x 1080) with extraordinary color accuracy

New 3MOS 1/4 inch imagers utilize 2.2 million pixels suitable for independent color processing (RGB) to provide exceptional detail and color matching

Digital recording in a compatible H.264 format on SDHC memory cards

Up to 12 hours on a single 32GB card. Direct random access playback on compatible Blu-ray players, displays and PCs. Content files can be transferred easily to hard disk drives or optical discs

Remotely controllable camera

Remote power and camera control from portable recorder (Zoom & Focus).
A foot switch can be used for start / stop operation

Highly affordable with low cost recording media

Full HD Operating Room Recording System

AVCCAM AG-MDC10/AG-MDR15

SPECIFICATIONS

Compact camera head AG-MDC10



[GENERAL]

Power Supply:	DC8 V-9 V (Supplied from the AG-MDR15 Series)
Power Consumption:	3.5 W
Operating Temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity:	10 % to 80 % (No condensation)
Weight:	Approx. 275 g (Approx. 0.61 lb.)
Dimensions (W x H x D):	53.5 x 56 x 123.8 mm (2.11 x 2.20 x 4.87 inches) excluding the projection part

[CAMERA]

Pick-up Device:	3MOS (1/4.1-inch progressive modes supported)
Picture Elements:	Effective: Approx. 2.51 megapixels x 3 (16:9)
Lens:	Lens with optical image stabilizer, 12x zoom, F1.8 to 2.8 (f=4.0 mm to 48 mm), 35 mm equivalent: 40.8 mm to 490 mm (16:9)
Filter Diameter:	43 mm
Optical Color Separation:	Prism system
ND Filter:	Auto On/Off by IRIS
Minimum shooting distance:	Approx. 35.43 inches (Approx. 0.9 m)
Gain Selection:	0 dB to +34 dB (Variable in 1-dB steps)
White balance:	ATW, preset 3200 K, preset 5600 K, W.set
Shutter Speed (Preset):	[59.94 Hz] 60i/60p mode: 1/60 sec. to 1/2000 sec. (7 steps) 30p mode: 1/30 sec. to 1/2000 sec. (8 steps) 24p mode: 1/24 sec. to 1/2000 sec. (8 steps) [50 Hz] 50i/50p mode: 1/50 sec. to 1/2000 sec. (7 steps) 25p mode: 1/25 sec. to 1/2000 sec. (8 steps)

Shutter Speed (Synchro Scan):	[59.94 Hz] 60i/60p mode: 1/60.0 sec. to 1/250.0 sec. 30p mode: 1/30.0 sec. to 1/250.0 sec. 24p mode: 1/24.0 sec. to 1/250.0 sec. [50 Hz] 50i/50p mode: 1/50.0 sec. to 1/250.0 sec. 25p mode: 1/25.0 sec. to 1/250.0 sec.
Slow Shutter Speed:	[59.94 Hz] 60i/60p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec., 1/30 sec. 30p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec. 24p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec. [50 Hz] 50i/50p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec., 1/25 sec. 25p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec.
Minimum Luminance:	Approx. 1 lx (Gain: +34 dB, Slow Shutter: 1/2 sec.)
Digital Zoom:	2x/5x/10x (When set to 59.94 Hz: 1080/60i, 720/60p only; when set to 50 Hz: 1080/50i, 720/50p only)

[Video Recording]

Recording Video Format ¹ :	[59.94 Hz] PH mode: 1080/60i, 1080/30p (over 60i), 1080/24p (native) ² , 720/60p, 720/30p (over 60p) and 720/24p (native) ² (Recording with the AG-MDR15 Series) HA, HG and HE mode: 1080/60i only [50 Hz] PH mode: 1080/50i, 1080/25p (over 50i), 720/50p and 720/25p (over 50p) HA, HG and HE mode: 1080/50i only
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[Video Output]

AG-MDR15 Series Output:	20-pin dedicated terminal (connection with the AG-MDR15 Series)
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[Audio Input]

Internal Microphone:	Stereo microphone
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[Standard Accessories]

Lens cap (mounted to the AG-MDC10), Lens hood (mounted to the AG-MDC10)	
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*1: When the system frequency has been changed, turn the unit's power off and then back on so that the setting takes effect.
*2: In the Native mode, AG-MDR15 Series record only active frames.

Full HD portable recorder AG-MDR15



[GENERAL]

Power Supply:	DC7.2 V (using with battery), 7.3 V (using with AC adapter)
Power Consumption:	11.7 W (when the optional AG-MDC10 Camera Head is connected) 6.5 W (in standalone condition)
Operating Temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity:	10 % to 80 % (No condensation)
Weight:	Approx. 580 g (Approx. 1.28 lb.) excluding battery Approx. 691 g (Approx. 1.52 lb.) including bundled battery
Dimensions (W x H x D):	96 x 52.6 x 133 mm (3.78 x 2.07 x 5.24 inches) excluding the projection

[Video Recording]

Recording Format:	AVCHD
Compression Method:	MPEG-4 AVC/H.264
Recording Media ³ :	SD Memory Card : 512 MB, 1 GB, 2 GB (FAT12, FAT16) SDHC Memory Card : 4 GB, 6 GB, 8 GB, 12 GB, 16 GB, 32 GB (FAT32)
Recording Video Format ⁴ :	[59.94 Hz] PH mode: 1080/60i, 1080/30p ⁵ (over 60i), 1080/24p ⁵ (Native) ⁶ , 720/60p, 720/30p ⁵ (over 60p) and 720/24p ⁵ (Native) ⁶ HA, HG and HE mode: 1080/60i only [50 Hz] PH mode: 1080/50i, 1080/25p ⁵ (over 50i), 720/50p and 720/25p ⁵ (over 50p) HA, HG and HE mode: 1080/50i only
Transmission Rate:	PH mode: Approx. 21 Mbps (VBR, Max. 24 Mbps) HA mode: Approx. 17 Mbps (VBR), HG mode: Approx. 13 Mbps (VBR) HE mode: Approx. 6 Mbps (VBR)
Recording Time:	Approx. 180 minutes (In PH mode with 1920 x 1080 pixels and using a 32 GB SDHC Memory Card)
SD Memory Card:	Max. recordable clips per card: 900 (after formatting, without removing/inserting the card) Max. playable clips: 1,000 (up to 1,000 clips displayed)

Thumbnail View:	8 frames/page
Editing Functions:	Delete, write-protect
Formatting Function:	Yes
[Video System]	
Video Signals:	[59.94 Hz] 1080/60i, 720/60p [50 Hz] 1080/50i, 720/50p
[Video IN/OUT]	
SDI Input:	HD-SDI Input, BNC x 1, 0.8 Vp-p, 75 Ω
SDI Output:	HD-SDI/SD-SDI Output, BNC x 1, 0.8 Vp-p, 75 Ω
AG-MDC10 Input:	20-pin dedicated terminal (connection with the AG-MDC10)
HDMI Output:	HDMI Output x 1 (HDMI Type A terminal), [59.94 Hz] 1080/60i, 720/60p, 480/60p [50 Hz] 1080/50i, 720/50p, 576/50p (Not compatible with VIERA Link)

[Audio System]

Compression Method:	Recording/Playback: Dolby Digital/2 ch
Sampling Frequency:	48 kHz
Quantization:	16 bit
Compression Bit-rate:	PH mode: 384 kbps, HA, HG and HE mode: 256 kbps

[Audio IN/OUT]

AG-MDC10 Input:	20-pin dedicated terminal (connection with the AG-MDC10)
External:	-70 dBV (Mic sensitivity: -50 dB equivalent, 0 dB=1 V/Pa 1 kHz)
Microphone Input:	Stereo mini jack (3.5 mm diameter) (Not compatible with plug-in power microphone)
HDMI Output:	2 ch (Linear PCM), 5.1 ch (Dolby Digital)
Headphone:	Stereo mini jack (3.5 mm diameter) x 1, 100 Ω -22 dBV (with 32 Ω load)

Built-in Speaker:	20 mm (round) x 1
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[Other Connectors]

Camera Remote:	Super mini jack (2.5 mm diameter) x 1, for zoom and rec start/stop operations
USB:	Type mini B connector (compliant with USB ver. 2.0)

[Monitor]

LCD Monitor:	3.5 inches, LDC color monitor, Approx. 210,000 pixels
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[Standard Accessories]

AC adapter/charger, 2640 mAh battery pack (secure type), AC cable, DC cable (catch type), CD-ROM, AVCCAM Restorer (Windows PC/Mac)	
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*3: SDHC/SD Memory Card (8 MB to 32 GB) can be used for reading metadata.
*4: When the system frequency has been changed, turn the unit's power off and then back on so that the setting takes effect.
*5: Selectable only when combined with the AG-MDC10.
*6: In the Native mode, AG-MDR15 Series record only active frames.

*Weight and dimensions shown are approximate. Specifications are subject to change without notice.